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## *REPORTS*

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### Pain Clinicians' Rankings of Aberrant Drug-Taking Behaviors

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**ABSTRACT.** A pilot study was conducted to examine experienced pain physicians' perceptions of aberrant drug taking behaviors. One hundred

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pain physicians attending a meeting on pain management were asked to rank order (from most aberrant = 1 to least aberrant = 13) a list of aberrant drug-taking behaviors. The sample was comprised mainly of anesthesiologists (50%) and half of the group had 10 or more years of pain management experience. The group prescribed an average of 19-96 opioid medications per week. Practice variables were not related to the rank ordering of the behaviors. All of the various behaviors appeared in all 13 of the rank ordering slots, suggesting a great deal of individual difference in the perception of these behaviors. By examining the average ranking of the behaviors, we noted that physicians' focus on illegal behaviors as the most aberrant followed by the alteration of route of delivery and self-escalation of dose. This survey suggests that an experienced group of pain clinicians does not view aberrant drug related behaviors uniformly. Average rankings suggest clinicians seem to view illegal behavior as the most worrisome. These results must be interpreted with caution due to the small convenience sample, the lack of data on the level of addiction medicine training of the respondents and the lack of data on those physicians who chose not to respond. Further inquiry could be used to guide clinicians' responses to aberrant behaviors when encountered in patients on controlled substances for pain. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <getinfo@haworthpressinc.com> Website: <<http://www.HaworthPress.com>> 2002 by The Haworth Press, Inc. All rights reserved.]

**KEYWORDS.** Pain, aberrant drug-taking behavior, addiction

### INTRODUCTION

The use of chronic opioid therapy in the management of nonmalignant pain, that is, pain not derived from cancer-related factors, has been increasing in acceptability over the past decade.<sup>1</sup> The common observation that cancer patients benefit from these medications and do not encounter major abuse and diversion has led to the extending of this strategy to many other populations. Despite this growing acceptance however, chronic opioid therapy for nonmalignant pain remains controversial and thus requires meticulous attention to assessment and documentation of outcomes in four key domains.<sup>2</sup> These domains, which have been referred to as the "4As," include analgesia (pain relief), activities of daily living (psychosocial functioning), adverse effects (side effects) and aberrant drug-taking behaviors (addiction).

While it is helpful to have a tool and/or a vocabulary for noting aberrant behaviors as they might occur in patients receiving chronic opioid therapy, the behaviors require clinical interpretation. There appears to be a difference among

behaviors along the continuum of aberrancy that has face validity, or the extent to which the behaviors simply appear to tap the construct it is supposed to measure. Some behaviors seem to be relatively common and not very aberrant, e.g., demanding more pain medication, occasional unilateral dose escalation. Others are illegal, uncommon and highly aberrant, e.g., prescription forgery. It appears that most clinicians concur about the high degree of aberrancy of these latter behaviors as well as others such as the intravenous injection of an oral formulation. Other behaviors are less blatant. However, when a drug is prescribed for a medically diagnosed purpose, less assuredness exists concerning the behaviors that could be considered aberrant and the potential for a diagnosis of drug abuse or addiction increases. Hence, none of these behaviors has a universal interpretation, and they must be viewed from the context of the multitude of influences that impact drug taking.<sup>3-4</sup>

The need for appropriate interpretation of patient behaviors is illustrated by the following case. Passik and Hay<sup>5</sup> published a case report on a young woman with borderline personality disorder, a psychiatric condition marked by impulsivity and an impoverished ability to relate to others in a non-dependent way, who forged a prescription for alprazolam to express her anger at her therapist who was away on vacation. This gesture was a typical (for this woman) way of expressing rage, fear of abandonment and self-defeating tendencies; as such it was a complex and psychologically meaningful act but had little to do with drug abuse or addiction. Thus, the clinician must attempt to “differentially diagnose” aberrant behavior by sorting out the potential influences so as to plan a clinical response. Among the influences that might “drive” aberrant behavior are addiction, pseudo-addiction (i.e., untreated pain<sup>6</sup>), self-medication of psychiatric or other physical symptoms, family dysfunction and criminality (i.e., intent to divert).<sup>7</sup>

The “norms” of drug taking and the epidemiology of aberrant drug-taking behavior have not been clearly established. Therefore, clinicians generally lack information to guide assessment of the severity of aberrant clinical occurrences. They might find a consensus of pain clinicians’ views of drug taking a useful basis upon which to make their clinical interpretations on aberrancy. In other words, while patients can be individually given the benefit of the doubt in certain clinical circumstances involving even the most egregious of behaviors, the pain management community may be able to reach some level of agreement about what behaviors can routinely be excused and which ones cannot. Such agreement could serve as a basis for an individual clinician’s decision-making so as to stay within the parameters of what the pain management community generally finds acceptable practice.

In an effort to ascertain the degree to which clinicians view the severity of specific aberrant drug-taking behaviors, we conducted a pilot survey of 100 pain physicians, asking them to rank order aberrant drug-taking behaviors for degree of aberrance.

## MATERIALS AND METHODS

### *Procedures*

A total of 100 physicians out of 147 total attendees completed a short survey on their perceptions of aberrant drug-taking behaviors. The physicians were attending the annual Janssen Pharmaceutica's Pain Experts Meeting in March 2001. The survey was conducted prior to the academic sessions and nearly all of those attending completed the questionnaire (124/147). Participants were asked to voluntarily complete the form as they registered for the meeting, were given verbal instructions for completing it, and asked to return it before the sessions began. Sessions during the meeting covered several relevant areas including assessment and pseudoaddiction.

### *Measure*

The survey instrument was a seven-item questionnaire designed to gather demographic data on type of practice, years in practice, specific discipline, number of opioid prescriptions written per year, and the percentage of patients seen who have had previous substance abuse problems (Appendix). Specific information was not obtained on the respondents' training in addiction medicine.

The survey presented participants with a list of thirteen aberrant drug-taking behaviors (Table 1) that we have described extensively elsewhere<sup>8</sup> and asked that the respondents rank-order them from most aberrant to least aberrant. There was no contextualizing (i.e., placing the behaviors within a case) provided to the clinicians. Respondents were simply asked to rank the behaviors as compared to others on the list.

## RESULTS

A total of 100 physicians completed the survey instrument prior to the meeting. These 100 represent the majority of those attending the meeting (100/147). Other attendees ( $n = 24$ ) filled out the questionnaire but returned them after the sessions on addiction and were not included because they were not physicians and had no role in writing prescriptions for patients. No data are available on the non-responders ( $n = 23$ ), including whether or not they were physicians. The majority (89.8%,  $n = 88$ ) worked primarily in non-cancer pain management while the remaining 10.2% ( $n = 10$ ) stated that they worked primarily with cancer pain issues. For those working in non-cancer pain management, the respondents stated that the majority of their patients had either low back pain concerns (69.3%,  $n = 61$ ) or musculoskeletal pain (22.7%,  $n = 20$ ), while only 7 (8%) reported that the bulk of their patients had neurology-based pain. The specialty of the physician

TABLE 1. Mean Ranking of Aberrant Drug-Taking Behaviors According to Perceived Level of Severity

Rank	Aberrant Behavior	Mean	Standard Deviation
1	Selling prescription drugs	4.00	3.54
2	Forging prescriptions	4.47	3.64
3	Altering route or drug delivery system (i.e., crushing sustained-release tablets for snorting or injecting)	4.71	3.64
4	Concurrent abuse of related illicit drugs	5.10	2.89
5	Stealing or borrowing medications from others	5.22	2.93
6	Obtaining drug from non-medical source	5.79	3.02
7	Frequent prescription losses	6.18	2.67
8	Multiple unsanctioned dosing	7.42	2.86
9	Aggressive demand for more drug	7.61	3.38
10	Unapproved use of drug to treat non-pain symptoms	7.74	3.08
11	Drug hoarding	8.63	3.26
12	Unsanctioned dose escalation once or twice	9.79	3.60
13	Unkempt appearance	10.95	3.17

(1 = most severe behavior, 13 = least severe behavior) for the entire sample (n = 100).

was most often found to be anesthesiology (49%, n = 49), primary care (21%, n = 21), or psychiatry (15%, n = 15). The remainder of the sample was composed of specialists in oncology (8%, n = 8), psychiatry (4%, n = 4), neurology (2%, n = 2), and rheumatology (1%, n = 1).

A wide range of pain management experience was represented in the sample. Nearly a quarter of the physicians (24, 24.2%) had been in practice for over fifteen years and an additional 20 respondents (20.2%) had been clinically active for 11-15 years. Thirty-one (31.3%) had been in practice for 6 to 10 years. Less than a quarter (24, 24.2%) had been in practice for less than five years.

It also was of interest to determine the number of opioid prescriptions written per year as well as the percentage of patients being treated who had previous substance abuse issues. There was a wide range of opioid prescriptions written per year. Most respondents endorsed that they wrote from 1,001-5,000 prescriptions per year (43%, n = 43) followed by those reporting that they wrote between 501 and 1,000 per year (23%, n = 23). Seventeen reported writing more than 5,000 prescriptions per year (17%) while only 5% (n = 5) stated that they wrote less than 100 opioid prescriptions per year. Concerning the percentage of patients

with previous substance abuse, most (66%,  $n = 66$ ) reported that less than 10% of their patients had such problems followed by 28% ( $n = 28$ ) who felt that 11-25% of their patients had abuse problems in the past. Only 6% ( $n = 6$ ) felt that over 25% of their patients had prior substance abuse issues.

The primary goal of the questionnaire was to have the physicians rank-order thirteen aberrant drug-taking behaviors (listed in Table 1). Behaviors considered most aberrant were ranked with a '1' and those deemed least aberrant were ranked '13.' Interestingly each behavior elicited the full range of potential responses, i.e., the range was 1-13 for all of the items.

The thirteen aberrant drug-taking behaviors were examined to see what trends in perception, if any, emerged (Tables 1 and 2).

The sale of prescription drugs by patients had the lowest average rating (indicating greater aberrancy) (mean = 4.00, SD = 3.54) followed by the forging of prescriptions (mean = 4.47, SD = 3.64) and altering the route or delivery system of a drug (mean = 4.71, SD = 3.64). Having a patient appear as unkempt (mean = 10.95, SD = 3.17) had the highest average rating (indicating less aberrancy). Other behaviors toward the low end of aberrancy were the unsanctioned dose escalation of a drug once or twice (mean = 9.79, SD = 3.17) and the hoarding of drugs (mean = 8.63, SD = 3.60).

As a final step, a series of one-way analyses of variance (ANOVAs) were conducted to determine whether any of the demographic differences among physicians had a significant effect on the ranking of the aberrant drug-taking behaviors. Specifically, an ANOVA model was chosen to explore whether there was a clear relationship (or signal) standing out amongst the demographics regarding the rankings or if the demographic variables were simply not producing an effect (or adding noise). No significant differences in ranking were found based on the type of patients primarily seen, the number of years in practice, type of specialty, number of opioid prescriptions written per year, or based on the percentage of patients having previous substance abuse issues.

## *DISCUSSION*

This pilot survey offers insight into the perceptions of 100 experienced physicians who are active in the pain management community. While the utilization of a convenience sample limits the conclusions one can draw from these data, the results do offer insights into pain management physicians' feelings about aberrant drug-taking behaviors. No data was collected on the 23 attendees who did not respond. It is unknown why they failed to complete the survey. The potential exists that a certain type of physician was not examined, although it is impossible to determine what effect, if any, this has on the data.

TABLE 2. Percentage of Times a Particular Behavior Occupied Each of the Rankings of Aberrancy

Percent rank for aberrant behaviors (1 = most severe behavior; 13 = least severe)												
1	2	3	4	5	6	7	8	9	10	11	12	13
<b>Aggressive demand for more drug:</b>												
5.9	3.4	5.0	5.9	6.7	3.4	10.1	12.6	8.4	14.3	12.6	9.2	2.5
<b>Altering route or drug delivery system (i.e., crushing sustained-release tablets for snorting or injecting)</b>												
26.1	13.4	7.6	7.6	10.1	8.4	5.9	5.0	0.8	6.7	1.7	2.5	4.2
<b>Concurrent abuse of related illicit drugs</b>												
12.5	11.7	8.3	11.7	15.0	11.7	7.5	5.8	5.8	4.2	3.3	2.5	0.0
<b>Drug hoarding</b>												
2.6	2.6	3.5	5.2	3.5	8.7	4.3	7.0	12.2	13.0	16.5	11.3	9.6
<b>Forging prescriptions</b>												
20.8	13.3	21.7	5.8	11.7	2.5	3.3	2.5	4.2	5.0	4.2	0.8	4.2
<b>Frequent prescription losses</b>												
1.7	2.5	4.2	9.2	10.0	14.2	13.3	15.8	8.3	6.7	0.8	2.5	0.8
<b>Multiple unsanctioned dosing</b>												
5.8	4.2	1.7	5.8	6.7	5.8	14.2	19.2	15.8	10.0	5.0	4.2	1.7
<b>Obtaining drug from non-medical source</b>												
7.6	8.4	8.4	10.9	10.9	14.3	8.4	7.6	8.4	6.7	5.9	0.8	1.7
<b>Selling prescription drugs</b>												
24.8	22.3	11.6	11.6	5.0	5.0	1.7	0.8	5.0	5.8	0.8	1.7	4.1
<b>Stealing or borrowing medications from others</b>												
7.5	6.7	19.2	15.0	10.8	7.5	9.2	7.5	6.7	4.2	4.2	0.8	0.8
<b>Unapproved use of drug to treat non-pain symptoms</b>												
4.2	2.5	5.0	4.2	9.2	10.1	13.4	9.2	10.1	10.9	8.4	10.9	1.7
<b>Unkempt appearance</b>												
3.4	0.8	0.8	3.4	0.8	1.7	2.5	2.5	0.0	3.4	12.6	24.4	43.7
<b>Unsanctioned dose escalation once or twice</b>												
4.2	2.5	2.5	2.5	4.2	2.5	0.8	4.2	5.0	10.9	17.6	21.8	21.0

(1 = most severe behavior; 13 = least severe behavior).

Perhaps the most striking feature is that each aberrant behavior listed was ranked at each possible position (1-13) at least once, suggesting a great deal of variability among the perceptions of physicians. There is a great deal of personal history and experience that can color how an individual physician identifies the problem patient. For example, a physician who has never encountered a patient who has forged a prescription or sold drugs may have the feeling that such behavior is rare or not a factor. On the other hand, a physician who has been “burned” by a patient who has engaged in a particular aberrant behavior might have that behavior become very salient in their future assessments.

Along these lines, it would be helpful to know more about the specific addictionology training of the respondents. One can only assume in the absence of such data that these clinicians probably had the typical minimal training in addiction. These were experienced pain physicians with nearly half practicing for over 10 years and averaging between 19 and 96 prescriptions for opioids per week. While most of the practice demographic variables did not predict differences in rank order of the behaviors, differences in addiction medicine training might have done so and should be considered in future studies.

Despite the range of responses, an examination of the mean aberrancy ratings for the behaviors suggests a clustering of those behaviors that seemed to be viewed as more problematic. The respondent physicians viewed many of the illegal behaviors as the most aberrant, followed by altering route of administration. With the recent media reports of abuse and diversion of controlled release oxycodone, these behaviors, while infrequent, may have assumed a high profile in the consciousness of the public, law enforcement and physicians at the time this survey was performed. Interestingly, while criminality is viewed as the most problematic manifestation of aberrant drug taking behavior, such behaviors are often hard to prove and not readily apparent to clinicians. The detection of such behaviors requires excellent communication among physicians, pharmacists and other team members for monitoring. It is interesting to consider that physicians might view their role as predominantly tied to monitoring and responding to legal aspects of prescribing of controlled substances and that these issues may be even more salient to them than the more common medical and psychiatric aspects of aberrant behavior. Unkempt appearance, escalating a dose once or twice, and drug hoarding were all deemed to be less egregious offenses. Indeed these may arise primarily from poor pain control more often than they do addiction related concerns. The fact that the subsequent analyses (ANOVAs) failed to reveal significant differences between the physicians based on any of the demographic variables suggests that there very well may be some degree of agreement that transcend differences in experience and practice variables.



### ***LIMITATIONS***

The conclusions drawn from these results need to be made somewhat cautiously due to the small convenience sample employed and the fact that while all of these clinicians have an active interest in pain (they were all attending a meeting of a pharmaceutical company speaker's bureau) this does not necessarily suggest a particular expertise in aberrant behavior or generalizability to other pain clinicians. Further, the assessment instrument itself was limited and may have been better suited to ask physicians to rate the problematic behaviors separately on a 1-10 scale for more in-depth statistical analyses. Additionally, specific information on addiction medicine training and interest in aberrant behavior were not examined. Also, contextualization of these behaviors within a case format was not studied; perhaps the way these behaviors are viewed changes when pain, psychosocial and other aspects of a case example are provided. Finally, we do not have data from 23 clinicians (16%) who chose not to respond.

### ***CONCLUSION***

This pilot survey suggests that there is some consensus among physicians in their views of aberrant behavior with illegal behaviors topping the list. It is also interesting to note the large amount of individual variation in how these behaviors are viewed. Larger studies are needed to further clarify these issues and to help guide practicing clinicians according to a consensus of their colleagues.

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## APPENDIX

**Assessment Survey Distributed to the Physicians****Profiling Research Questions**

(Please circle your answers)

1. Which kind of pain represents the majority of your practice?
  - A. Cancer Pain
  - B. Non-cancer pain
2. If non-cancer pain, the majority is:
  - A. Low back pain
  - B. Musculoskeletal pain
  - C. Other (please specify)\_\_\_\_\_
3. How many years have you been in pain practice?
  - A. Less than 5
  - B. 6-10
  - C. 11-15
  - D. 15+
4. What is your discipline?
  - A. Psychiatry
  - B. Anesthesiology
  - C. Nursing
  - D. Primary Care
  - E. Oncology
  - F. Other (please specify)\_\_\_\_\_
5. How many opioid prescriptions do you write per year?
  - A. Fewer than 100
  - B. 101-500
  - C. 501-1000
  - D. 1001-5000
  - E. 5000+
6. What percentage of patients do you treat who have previous substance abuse issues?
  - A. Less than 10%
  - B. 11%-25%
  - C. 26%-50%
  - D. More than 50%
7. Please rank the following behaviors based on your perception of aberrant drug-taking behaviors in pain management from 1 for most aberrant to 13 for least aberrant.
  - \_\_\_ Aggressive demand for more drug
  - \_\_\_ Altering route or drug delivery system  
(i.e., crushing sustained-release tablets for snorting or injecting)
  - \_\_\_ Concurrent abuse of related illicit drugs
  - \_\_\_ Drug hoarding
  - \_\_\_ Forging prescriptions
  - \_\_\_ Frequent prescription losses
  - \_\_\_ Multiple unsanctioned dosing
  - \_\_\_ Obtaining drug from nonmedical source
  - \_\_\_ Selling prescription drugs
  - \_\_\_ Stealing or borrowing medications from others
  - \_\_\_ Unapproved use of drug to treat non-pain symptoms
  - \_\_\_ Unkempt appearance
  - \_\_\_ Unsanctioned dose escalation once or twice